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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,351	09/28/2001	Franciscus Petrus Maria Mercx	120406-1	3890

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Robert E. Walter
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EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/966,351

Applicant(s)

MERCX ET AL.

Examiner

Kevin R Kruer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, drawn to a molded polyester composition having a portion of its surface metallized, classified in class 428, subclass 458.
- II. Claim 12, drawn to a method of making a molded polyester composition having a portion of its surface metallized, classified in class 427, subclass 250+.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process could be used to make a materially different product. For example, the release agent of claim 12 does not have to be a "non-blooming" release agent. Furthermore, the product as claimed could be made by a materially different process. Specifically, the product could be made by a process that does not require a nucleating agent.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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During a telephone conversation with Robert Walter on Monday, July 22, 2002 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claim 12 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim contains an improper Markush group. The courts have held that alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B **and** C." See *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925).

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2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "non-blooming" is indefinite. Specifically, it is not clear from the specification under what conditions one would determine whether a lubricant was "non-blooming." It is also unclear how one would determine when a lubricant is "blooming" or "non-blooming." If Applicant's contention is that a lubricant is non-blooming when the metallized resin article is subject to aging at temperature of 150-185 Centigrade, then claim 2 fails to further limit claim 1.
3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how to determine when mold release becomes "sufficient." It is also unclear ~~how to determine~~ how to determine when the amount of said lubricant is "sufficiently low" and how to determine "good metal adhesion." Furthermore, it is not clear whether the amount of lubricant claimed in claim 5 is narrower than the lubricant range claimed in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1- 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breitenfellner et al. (US 4,623,562) in view of Cohen (US 4,185,047). Breitenfellner

teaches a light reflecting body of which the wall consists of a polyalkylene terephthalate and or copolymers thereof, and a light reflecting metal layer applied directly to at least one surface of the wall (col 1, lines 26+). The shaping of the light reflecting body is preferably performed by an injection molding process (col 3, lines 54+). After shaping, the surface to be reflecting of the light reflecting body is provided, in a manner known per se, with a metal layer, preferably by vapor deposition of aluminum (col 3, lines 60-63). The molded light reflecting body may be in the form of convex, concave or plane mirrors, for example for producing headlight reflectors, reflectors for rear lamps, reflector for traffic lights or indicator lamps (col 3, lines 64-68).

Breitenfellner does not teach that the polyester base should comprise the claimed composition. However, Cohen teaches a thermoplastic molding composition having improved mold release properties. The composition comprises (a) a thermoplastic resin selected from the group consisting of high molecular weight linear polyester and high molecular weight block polyester, (b) from about 0.1-4.5wt% of a polyolefin or olefin-based copolymer, and, (c) optionally, from about 0.02-0.5wt% of talc (abstract). The examiner takes the position that the talc reads on applicant's claimed "nucleating agent" since applicant states that talc is "the most preferred nucleating agent (page 4, line 17 of specification)." Alternatively, Cohen further teaches that nucleating agents such as graphite or metal oxide may be included in the composition (col 4, lines 55+). The polyester resin may comprise polyethylene terephthalate or poly(1,4-butylene terephthalate) (col 2, lines 49+). The polyolefin or olefin-based copolymer is preferably included in amounts of 0.5-2wt% and is selected from the group

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comprising polyethylene, EVA, and ethylene acrylic acid (col 3, lines 63+). The composition has improved mold release and good surface appearance (col 1, lines 40+). Thus, it would have been obvious to one of ordinary skill in the art to utilize the mold composition taught in Cohen as the base layer of the metallized light reflecting laminate taught in Breitenfellner because said compositions have improved mold release properties and surface appearance.

The examiner takes the position that the polyolefin component taught in Cohen inherently meets the limitations of claim 2 because the component taught in Cohen is the same polymer as the polymeric release agent/lubricant component disclosed/claimed by Applicant. Furthermore, the examiner takes the position that the composition taught in Cohen meets the limitations of claim 5 because said composition is taught to have good mold release.

5. Claims 1- 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breitenfellner et al. (US 4,623,562) in view of Weaver et al. (US 4,699,942).

Breitenfellner teaches a light reflecting body of which the wall consists of a polyalkylene terephthalate and or copolymers thereof, and a light reflecting metal layer applied directly to at least one surface of the wall (col 1, lines 26+). The shaping of the light reflecting body is performed by customary processes, preferably by injection molding process (col 3, lines 54+). After shaping, the surface to be reflecting of the light reflecting body is provided, in a manner known per se, with a metal layer, preferably by vapor deposition of aluminum (col 3, lines 60-63). The molded light reflecting body may be in the form of convex, concave or plane mirrors, for example for producing headlight

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reflectors, reflectors for rear lamps, reflector for traffic lights or indicator lamps (col 3, lines 64-68).

Breitenfellner does not teach that the polyester base should comprise the claimed composition. However, Weaver teaches a molding composition comprising a crystalline polyester, 0.25-0.75wt% a low molecular weight polyethylene mold release, 0.25-0.75wt% talc as a nucleating agent, and up to 2.45wt% of various other additives (col 2, lines 29+). The polyester is generally derived from terephthalic acid and glycols having 2-8 carbons (col 3, lines 4+). Such compositions result in superior polyester (col 2, lines 21+) and allow better stampability. Therefore, it would have been obvious to one of ordinary skill in the art to utilize the mold composition taught in Weaver as the base layer of the metallized light reflecting laminate taught in Breitenfellner because said compositions have improved properties and stampability.

The examiner takes the position that the polyolefin component taught in Weaver inherently meets the limitations of claim 2 because the component taught in Weaver is the same polymer as the polymeric release agent/lubricant component disclosed/claimed by Applicant. Furthermore, the examiner takes the position that the composition taught in Weaver meets the limitations of claim 5 because said composition is taught to have good mold release.

6. Claims 1-7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000035509A (aka Polyplastics) in view of Cohen et al. (US 4,185,047).

Polyplastics teaches a reflector, such as a lamp of an automobile, conventionally

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comprises a highly workable crystalline thermoplastic polyester and a light reflecting metal vacuum deposited on said polyester (see page 1 of translation).

Polyplastics does not teach the composition that should comprise a polyester base sheet comprising the claimed composition. However, Cohen teaches a thermoplastic molding composition having improved mold release properties. The composition comprises a thermoplastic resin selected from the group consisting of high molecular weight linear polyester and high molecular weight block polyester, from about 0.1-4.5wt% of a polyolefin or olefin-based copolymer, and, optionally, from about 0.02-0.5wt% of talc (abstract). The examiner takes the position that the talc reads on applicant's claimed "nucleating agent" since applicant states that talc is "the most preferred nucleating agent (page 4, line 17 of specification)." Alternatively, Cohen further teaches that nucleating agents such as graphite or metal oxide may be included in the composition (col 4, lines 55+). The polyester resin may comprise polyethylene terephthalate and poly(1,4-butylene terephthalate) (col 2, lines 49+). The polyolefin or olefin-based copolymer is preferably included in amounts of 0.5-2wt% and is selected from the group comprising polyethylene, EVA, and ethylene acrylic acid (col 3, lines 63+). The composition has improved mold release and good surface appearance (col 1, lines 40+). Thus, it would have been obvious to one of ordinary skill in the art to utilize the mold composition taught in Cohen as the base layer of the metallized light reflecting laminate taught in Polyplastics in order to improve mold release and surface appearance (col 1, lines 40+).

The examiner takes the position that the polyolefin component taught in Cohen inherently meets the limitations of claim 2 because the component taught in Cohen is the same polymer as the polymeric release agent/lubricant component disclosed/claimed by Applicant. Furthermore, the examiner takes the position that the composition taught in Cohen meets the limitations of claim 5 because said composition is taught to have good mold release.

7. Claims 1-7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000035509A (aka Polyplastics) in view of Weaver et al. (US 4,699,942). Polyplastics teaches a reflector, such as a lamp of an automobile, conventionally comprise a highly workable crystalline thermoplastic polyester and a light reflecting metal vacuum deposited on said polyester (see page 1 of translation).

Polyplastics does not teach the composition that should comprise the polyester base sheet. However, Weaver teaches a molding composition comprising a crystalline polyester, 0.25-0.75wt% a low molecular weight polyethylene mold release, 0.25-0.75wt% talc as a nucleating agent, and up to 2.45wt% of various other additives (col 2, lines 29+). The polyester is generally derived from terephthalic acid and glycols having 2-8 carbons (col 3, lines 4+). Such compositions result in superior polyester (col 2, lines 21+) and allow better stampability. Therefore, it would have been obvious to one of ordinary skill in the art to utilize the mold composition taught in Weaver as the base layer of the metallized light reflecting laminate taught in Breitenfellner because said compositions have improved properties and stampability.

The examiner takes the position that the polyolefin component taught in Weaver inherently meets the limitations of claim 2 because the component taught in Weaver is the same polymer as the polymeric release agent/lubricant component disclosed/claimed by Applicant. Furthermore, the examiner takes the position that the composition taught in Weaver meets the limitations of claim 5 because said composition is taught to have good mold release.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 703-305-0025. The examiner can normally be reached on Monday-Friday from 7:00a.m. to 4:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

KRK


Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700